

AMENDMENT

IN THE SPECIFICATION:

Please amend the first and second full paragraphs on page 8 so as to read as follows:

The schematic cross sectional view shown in Fig. 5 illustrates a surface plasmon microscope according to another embodiment of the present invention. This figure shows a light illuminating source 1, a substrate 2 having a striped ridge, a metal layer 3 formed to cover side surfaces of the ridge, a thin metal film 4 formed on a top face of the ridge, a photodetector 5 8 for detecting light reflected by metal layer 3 and thin metal film 4, a specimen 6 spaced from thin metal film 4 with a gap filled with matching oil (not shown), and a movable stage 7 for scanning the specimen.

The convergent light emitted from light illuminating source 1 is transmitted through substrate 2 and focused on thin metal film 4. Of the focused light, a light part having a specific incident angle, which depends on the thicknesses and refractive indices of thin metal film 4, emulsion oil and specimen 6, excites a surface plasmon. Photodetector 5 8 detects light reflected by metal layer 3 and thin metal film 4 and not contributing to excitation of the surface plasmon. The coordinates at which the intensity of reflected light is reduced due to the surface plasmon excitation is detected on photodetector 5 8, and the surface plasmon excitation angle is calculated from the coordinates, to thereby obtain the refractive index of specimen 6.